



CS207 #8, 20 Nov 2009

Gio Wiederhold

Gates B12



Syllabus:

1. Why should software be valued?
2. Principles of valuation. Cost versus value.
3. Market value of software companies.
4. Intellectual capital and property (IP).
5. Open source software. Scope. Theory and reality
6. Life and lag of software innovation.
7. Sales expectations and discounting.
8. Alternate business models. Licensing.
9. The role of patents, copyrights, and trade secrets.
10. Offshoring [Prof. Gupta]
11. Separation of use rights from the property itself.
12. Risks when outsourcing and offshoring development.
13. Effects of using taxhavens to house IP.



Offshoring

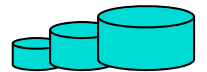
Task transfer to Enterprises in Foreign countries

Two aspects:

1. Work migration: jobs are moved to lower-cost countries



2. Support software etc. is moved to enable similar productivity in those countries



Income is generated by people and
(intellectual) capital



What is intellectual property (IP)

Typical ranges for a creative company

- Total value of a company (~ market value) 100%
 1. Tangible property (in knowledge-based enterprises) < 20%
 2. Workforce–in-place (not property these days) ~30%
 3. Intellectual property (unique to the company) ~50%
 - Patents 5% to 20% of the IP
 - Copyrights held 0% to 5% of the IP
 - Software 10% to 50% of the IP
 - Trademarks 20% to 50% of the IP

IP is an essential component for a company to generate income and to grow.

Rights to IP can be isolated from its physical representation



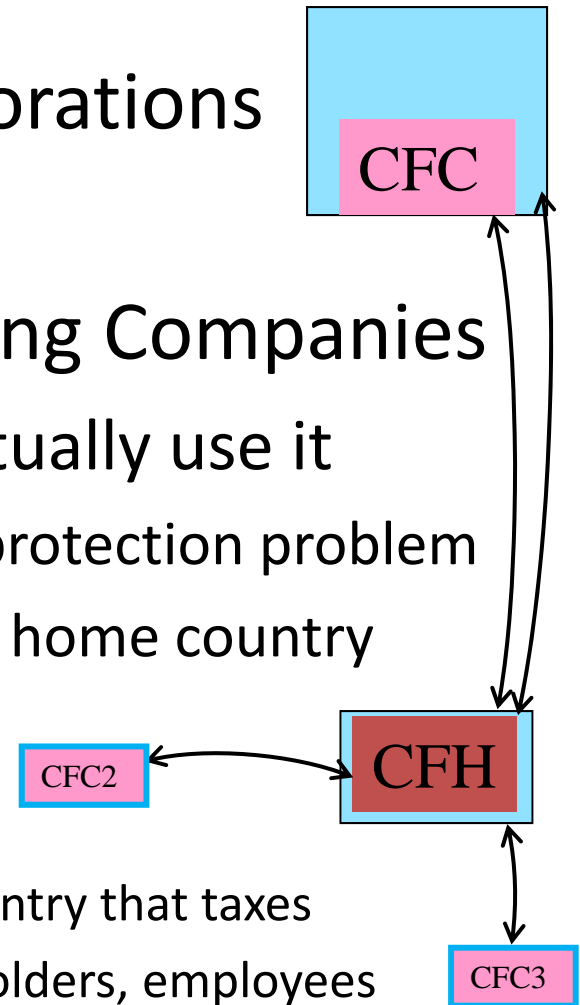
IP Hypothesis

- Offshoring of jobs is effective because of concurrent Intellectual Property (IP) transfer
- Much of that IP is corporate property
- Transfer of corporate IP is poorly understood
 - IP as property is not well defined, hard to measure
 - There are many components to IP, coming from
 - *open source*, **R&D**, **marketing**, **reputation** as
 - Patents, copyright, trade secret (covered by NDAs)
- Still, IP transfer is a valuable, significant export

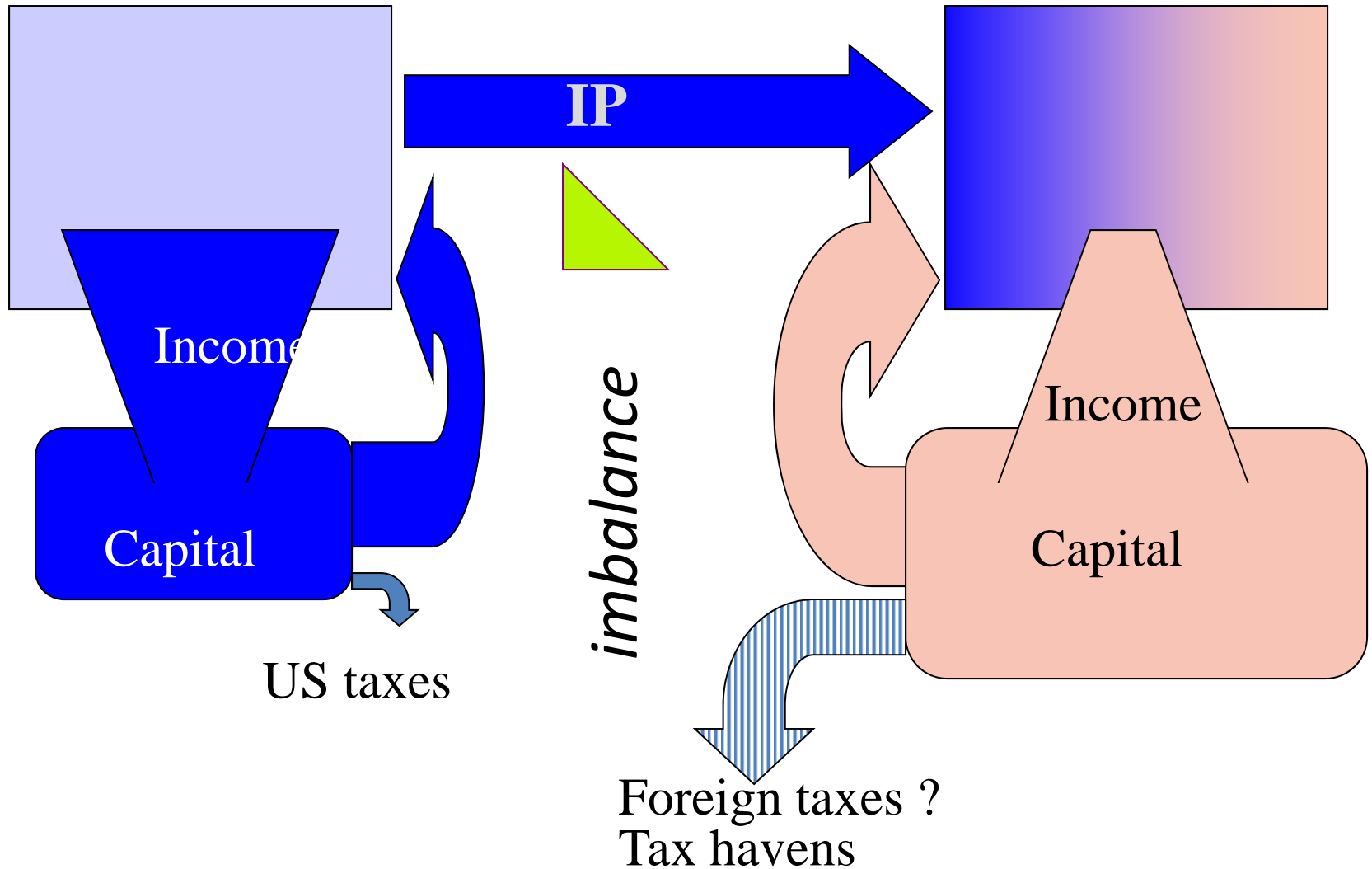


Another Type of Foreign Entity: CFH

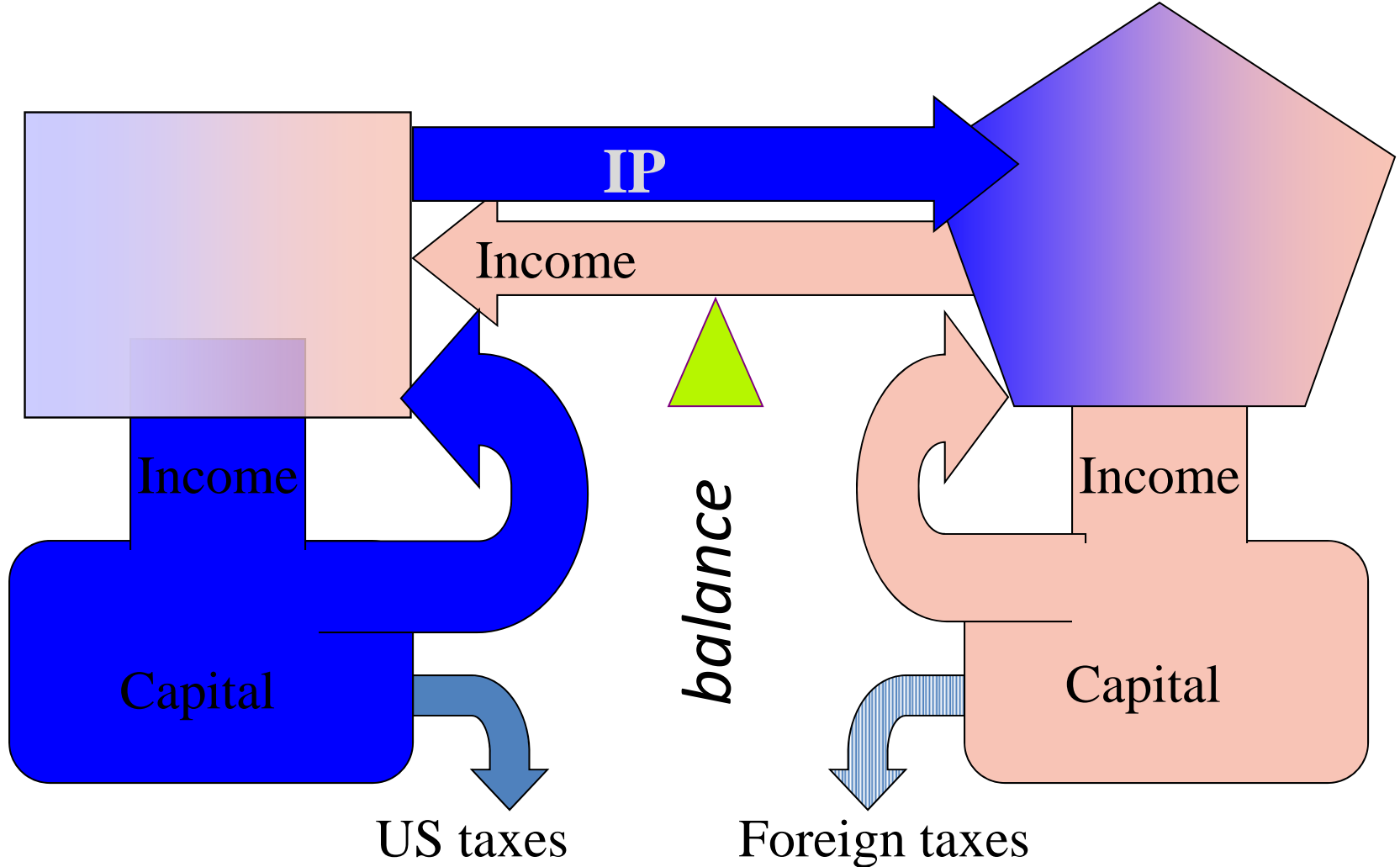
- Owned, **C**ontrolled **F**oreign **C**orporations
 - CFC provides control over IP
- Owned, **C**ontrolled **F**oreign **H**olding Companies
 - Buy and hold the IP, but do not actually use it
 - No physical holdings, only rights, no protection problem
 - Used to keep funds and IP outside of home country
 - Increases flexibility of investments
 - Often in a tax haven
 - Taxes only due when funds flow to a country that taxes
 - Little transparency for outsiders, stockholders, employees



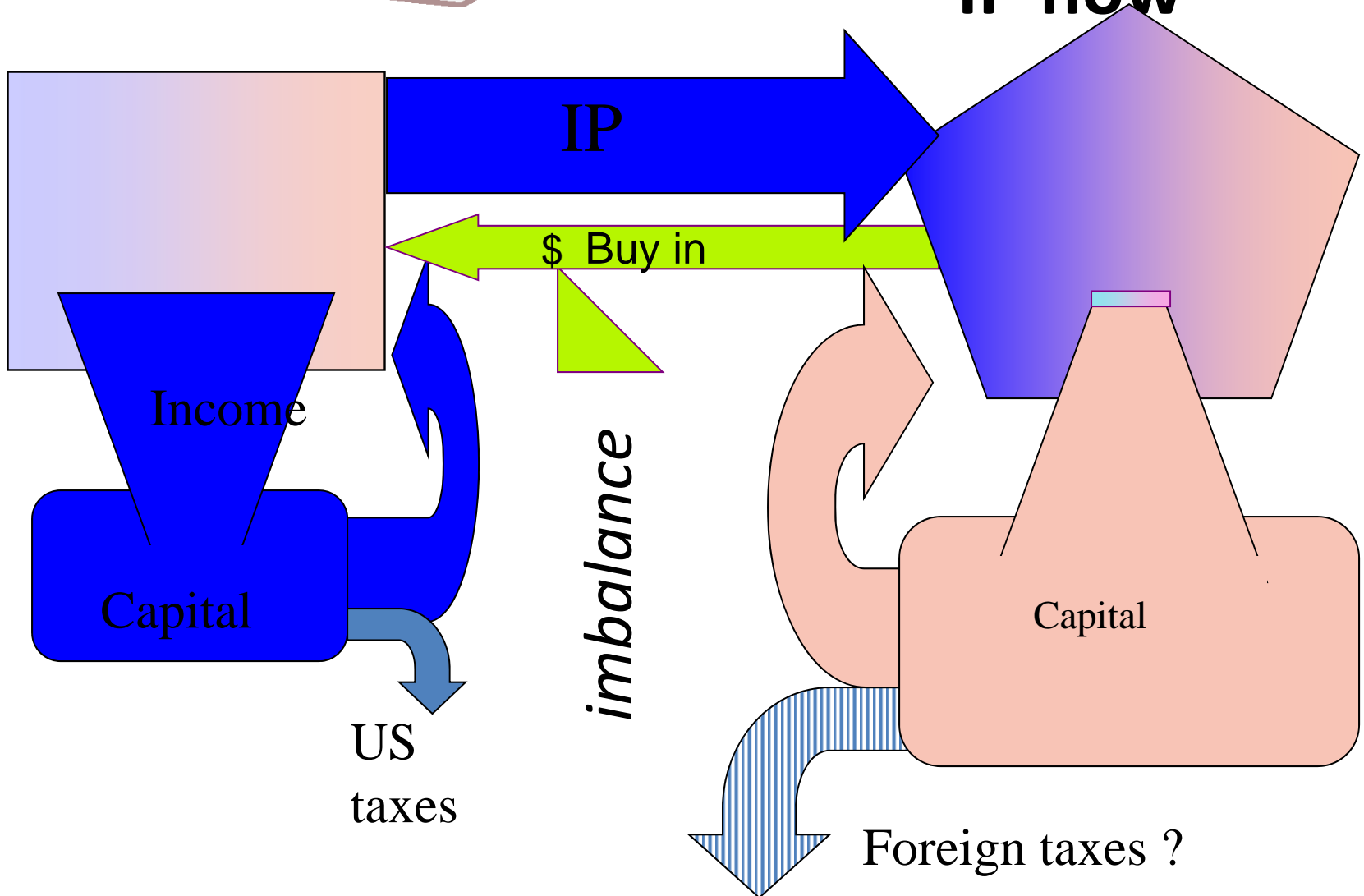
IP flow without return



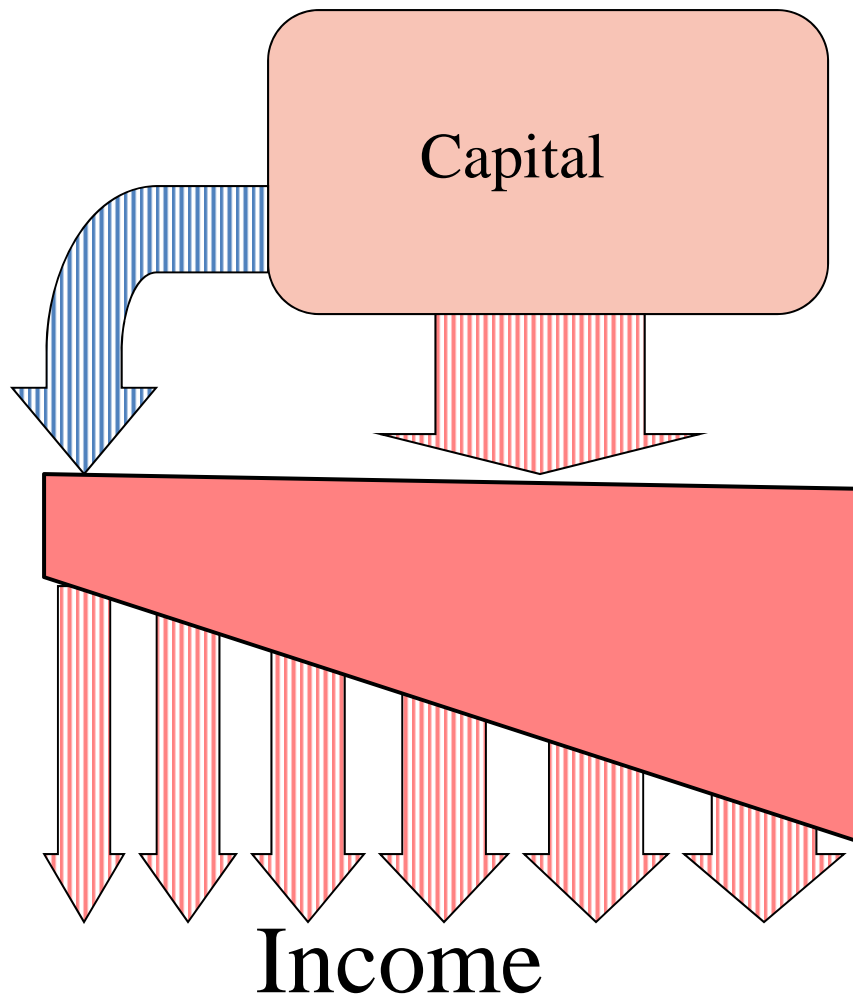
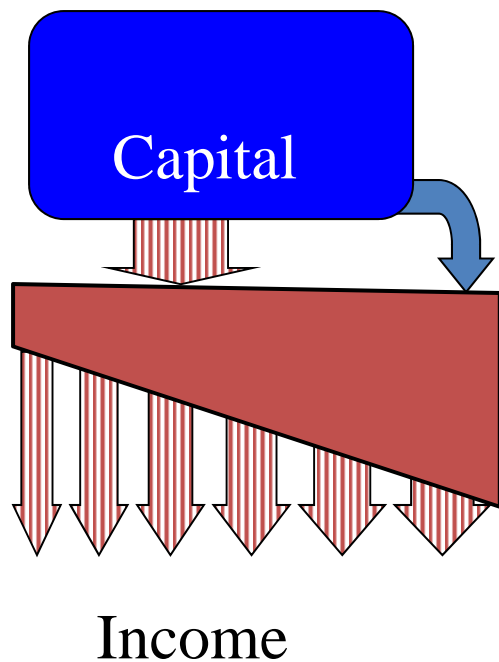
IP flow with fair return



2.3 Unbalanced IP flow



Capital creates more IP and Income





Tax avoidance

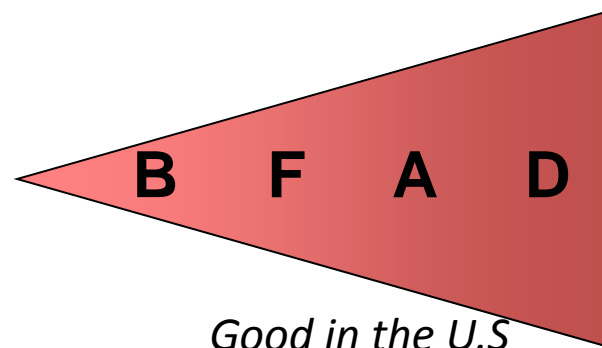
- To avoid paying US taxes in the income generated by offshoring the holding company is moved to a foreign tax haven (CFH).
 - Formally that move amounts to an export
- Since IP is intangible, it can be placed far away from the US and offshore workers.
- Only the CFH existence needs to be reported, not its assets in IP and accumulated \$\$



← Symmetry →

Exports and Transfers go both ways

- There is innovation everywhere
- If the U.S. imports IP, the receiver should pay
 - Basic and fundamental research in the U.S. is declining
 - Growth was motivated by WW II experience [Vannevar Bush]
 - Many countries now fund fundamental research
 - The ratio of applied to basic research is increasing
 - Industrial research is mainly applied
 - Technological research is rarely basic
 - Development requires more resources
 - Industrial and management infrastructure
 - Demonstration and Beta sites - early adopters





Taxhavens

Places where

1. Taxes are low
2. Financial and IP supervision is minimal
3. Reporting requirements are minimal

- Two types

1. Primary tax havens (about a dozen countries)

- Small populations,
- Can live largely of license fees
 - Cayman Islands: pop. 50K, 90K companies @ 3000/year

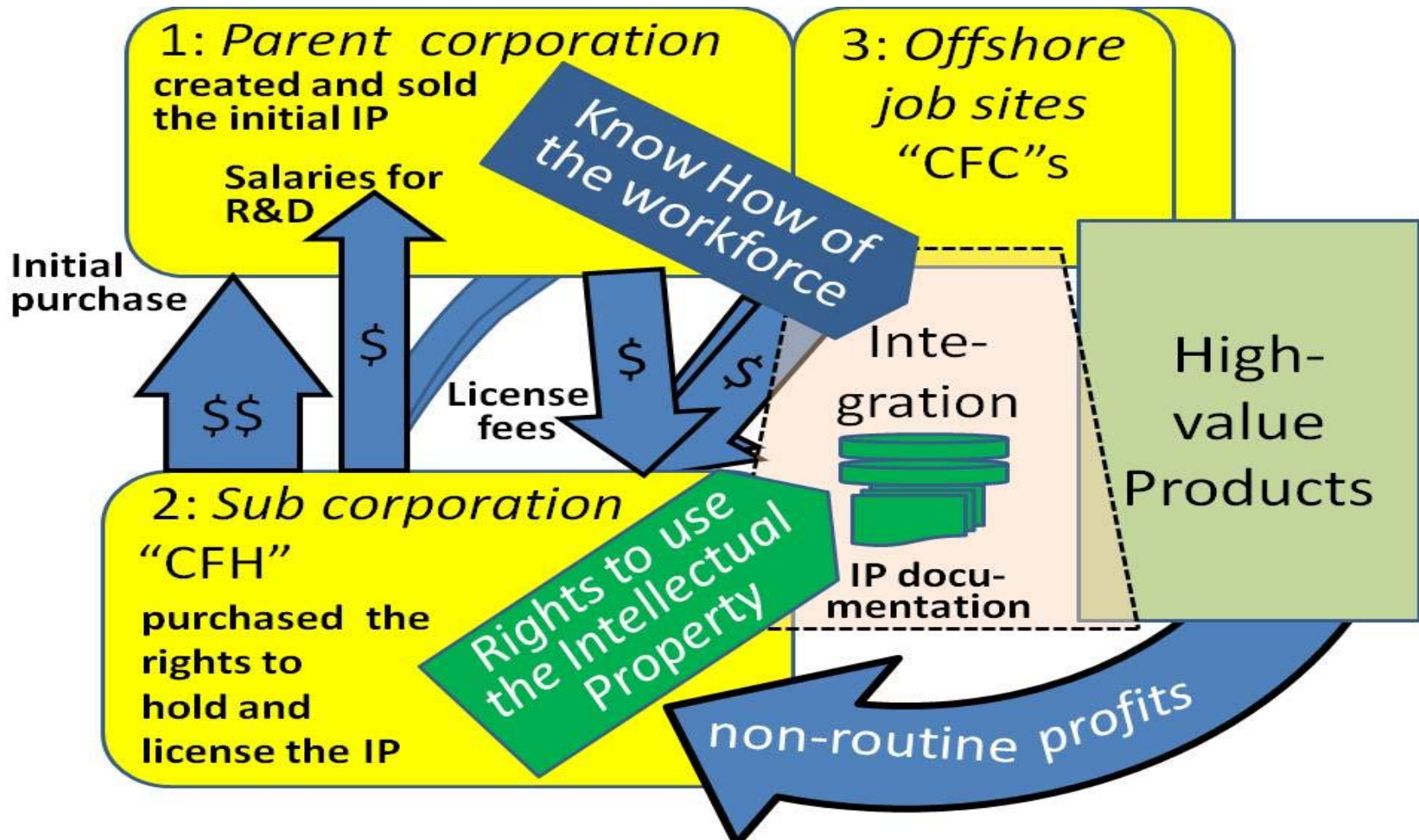


2. Semi-taxhavens (more, but often changing)

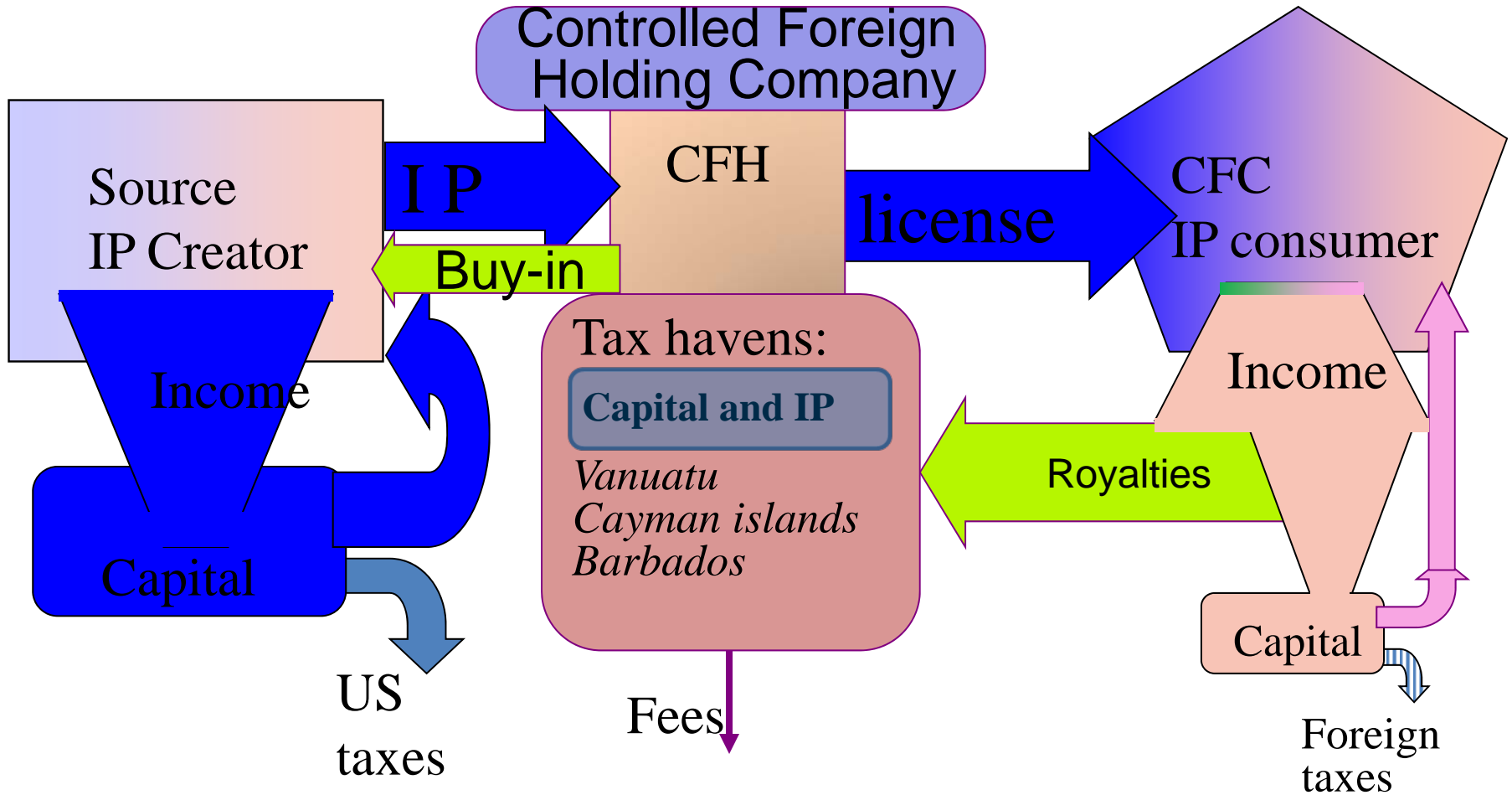
- Large populations, need jobs
- Enact, often temporary, tax benefits for foreign work



With Taxhavens: Three-party flow

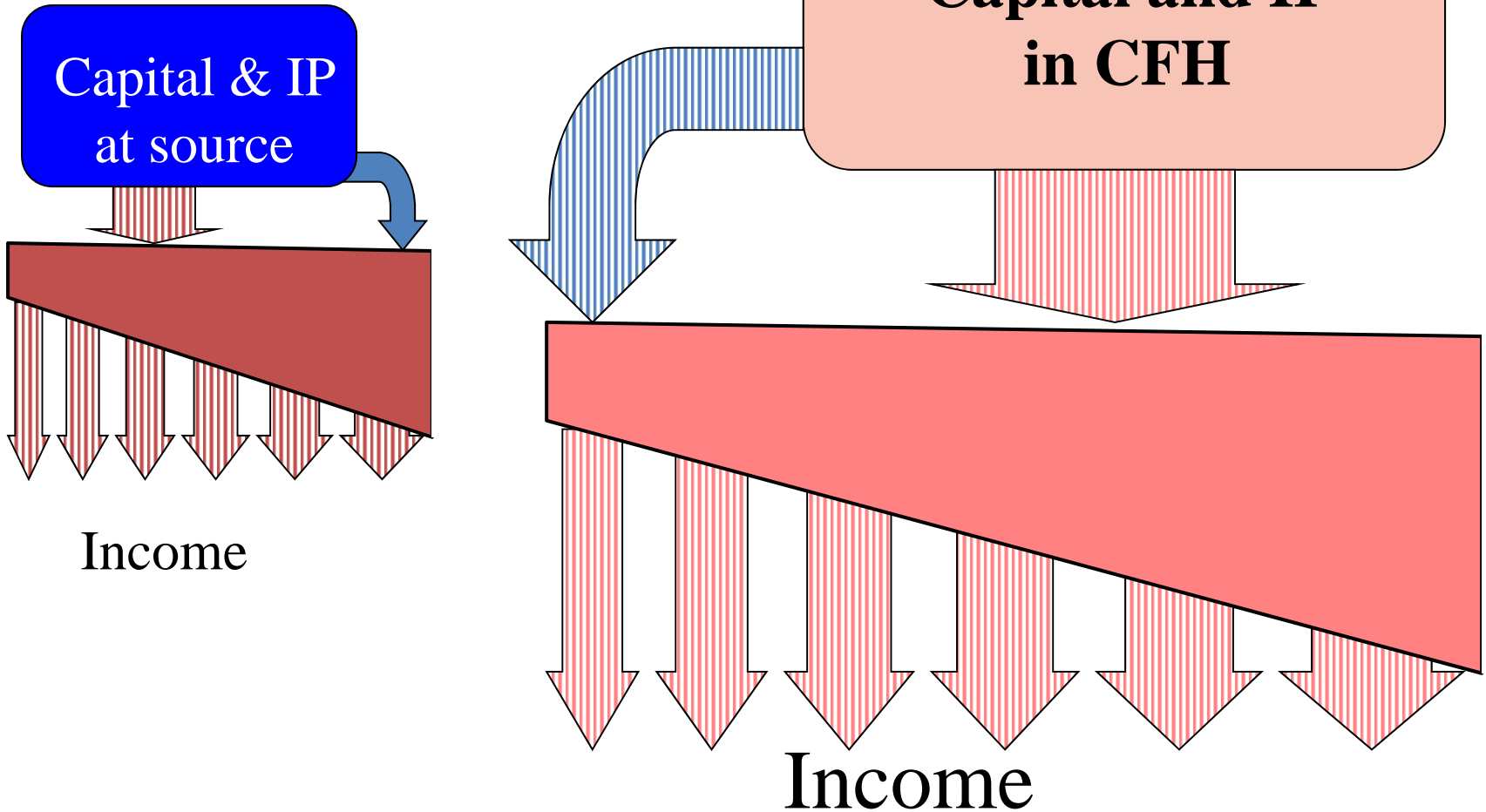


Capital flow with a taxhaven



Tangibles are harder to move than IP

Capital and IP creates more IP and Income

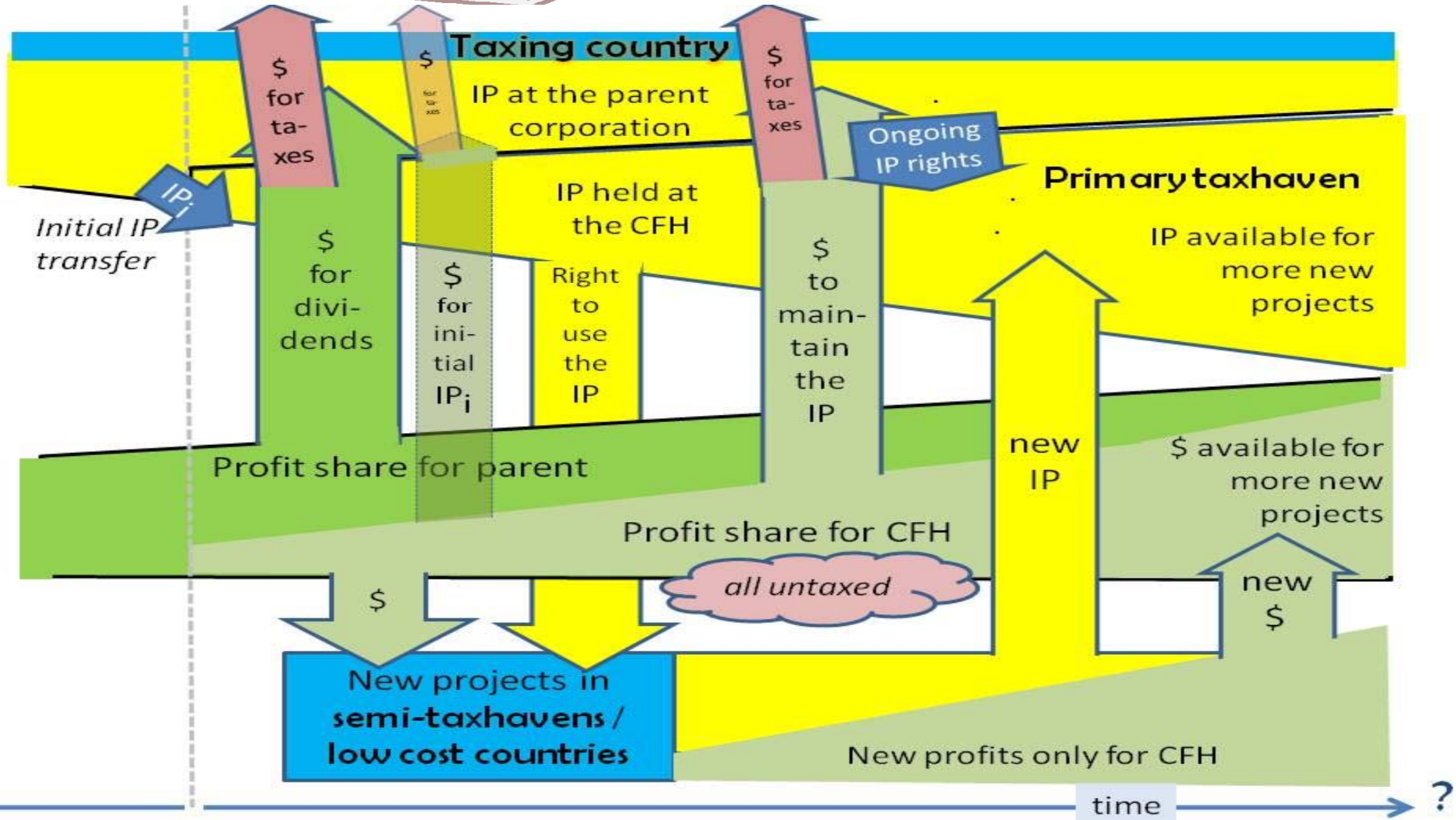




Longer term effect

- Repatriation of \$\$ from the CFH to the US is taxed.
- Current workers are paid by the CFH.
 - US and offshore employees are unaware of the source of their paycheck
 - The CFH acquires an increasing fraction of the IP
 - The CFH is paid an increasing fraction of the income
 - The CFH in time can becomes richer than the company.
- It is more efficient for the company to invest in low-tax countries and create jobs there.
 - Job losses in the U.S. increase
- Eventually the CFH can buy the parent company.
 - Control by stockholders is gone as well


Effects over time







Problems

- There is a lack of trustworthy data

1. \$ 209M  spent [US commerce department, 2003]
+ 4 663 jobs lost [U.S. labor dept, 1Q04]


2. \$2 400M   ome [Business week, in 2003]
+ 50 000 jobs gained [Indian NAS&S Cos, Fy04/4]

- Attitudes are inconsistent

Greenspan 1: IP rights have assumed increasing importance [27Feb03]

Greenspan 2: Our economy is best served by full and vigorous engagement in the global economy – when defending reducing protection

[11Mar03]



Related Intellectual capital issues

Not all intellectual capital is owned, property, IP

1. Education: Services that transmit valuable, but non-*proprietary* knowledge to others.
 - If receiver pays, certainly can take it anywhere
 - If the state pays, can it / should it be reimbursed? Now not.
 2. Publication: *IP* placed into the public domain is no longer IP
 - Who benefits?
 - The reader gets knowledge / The writer gets fame
 - Society becomes more egalitarian, effective
- These 2 aspects can easily confuse IP discussions

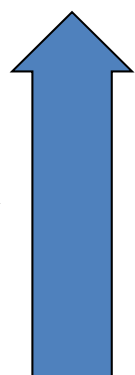




Future: Outsourcing and IP export

Need Increased understanding and accounting for IP exports
(making them visible)

To rationalize political concern by populists & traditional conservatives
versus strong lobbyists pressures and globalists

Correct pricing, licensing and its taxation of IP exports

- will increase corporate profits in the U.S.
 - reduce cash in offshore accounts, more for U.S. investment
 - provide taxes that could be used to compensate
 - for R&D support provided by the government
 - for educational costs
 - for unfunded retirement benefits of workers whose jobs are outsourced
 - Is unlikely to stop offshoring substantially
 - Amounts would be large in a number of cases
 - But
- 
- 
- 



Realistic

Imbalances among countries will remain

• Unlikely Solution: *advocated by some experts*

1. global coherence in taxation rules and rates
2. global consistency in IP management

1. Incremental solution

Education and public pressure to affect corporate behavior

2. Radical Solution

Do away with corporate taxation altogether

Only tax, but fully, when income flows to the consumer

1. Dividends and
2. Capital gains

These are now taxed at lower rates
to reduce *double taxation*
(as corporate and personal income)



Corporations are/ are not Persons

- **Corporate Personhood ?** [14th amendment applies (and now 1st&5th):
US Supreme court 1886 re contracts case, Santa Clara County vs Union Pacific RR]
 - Corporations have different motivations, obligations and means
 - [Al Gore: *The Assault on Reason*; The Penguin Pres, 2007].
 - Obligations is solely to the stockholders' finances
 - Means include being able to be in multiple locales at the same time
- **Benefits**
 - Reduced distortions due to tax differences
 - Differences in labor costs will remain
 - Even playing field for locals an multi-nationals
- **Barriers**
 - Public perception of corporations
 - Lawyers and lobbyists now employed to minimize taxes



Tax advisors

- Most high-tech companies
 - leave tax decisions to specialists companies
 - don't try to understand what is going on
 - have never measured the value & locale of their IP
- The tax advisors themselves are global
 - Discrete companies in the
 - U.S., UK, The Netherlands, Cayman Islands, India, China
 - Joined under the Swiss 'Vereinsgesetz' [club law]
 - Can share resources, information, funds
 - Not responsible for each other's actions or advice

“just club members”

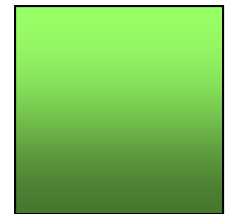
Global philosophical questions

Happiness or contentment

- Personal

- ↑ More cheap stuff --- a benefit of offshoring

- ↓ Less employment --- a cost of offshoring



- Global benefits of offshoring -- long term

- ↑ Greater income equality among countries

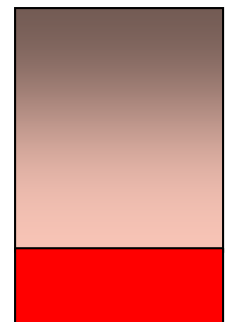
- ↑ Similar working conditions within countries

- ↑ NAFTA - neighboring countries

- ↗ Friendly countries

- World-wide

- ↓ Does not apply to Taxhavens



- Can a corporation or government be happy?